



# LEWIS & CLARK CITY-COUNTY Health Department

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## After the Flood: Water and Mold Clean-up

Molds are fungi that grow best in warm, damp environments – like your flooded basement. If your home has been flooded and has been closed up for several days, you can assume it has been contaminated with mold.

### Mold and Health

Some people are sensitive to molds – even dead molds. Exposure can cause symptoms such as a stuffy nose, irritated eyes, irritated skin, or wheezing. People with serious allergies to mold can have more severe reactions, including fever and shortness of breath. Some people with chronic lung diseases may develop mold infections in their lungs.

To protect the health of you and your family, you should remove mold, both living and dead.

### Dry Out First

Before tackling any mold growth, first dry out your house. Here's how:

- If you have electricity and an electrician has determined that it's safe to turn it on, use a "wet-dry" shop vacuum, a water transfer pump, or a sump pump to remove standing water. Wear rubber boots while working in wet areas.
- If you don't have electricity, or if it's not yet safe to turn it on, you can use a portable generator to power equipment. (Note: Never operate a gasoline-powered tool in an enclosed space, even if windows and doors are open; it can create dangerous levels of carbon monoxide.)
- If weather permits, open doors and windows to aid the drying-out process.
- Use fans and dehumidifiers to remove excess moisture. Place fans so they blow out a window or door, so you don't spread mold.
- Before you turn on your home heating, ventilating, and air-conditioning system, have it checked and cleaned by a maintenance or service professional who is experienced with mold clean-up. If the system was flooded, turning it on may spread mold throughout the house.
- To keep water from coming back, make sure rain from gutters and your roof drain away from the house. Sloping the ground away from your house can help to keep basements and crawl spaces dry.
- Make sure basements and crawl spaces have proper drainage to limit water seepage. Ventilate them to dry them out.

### Finding Mold

- In addition to areas that were flooded, search for moisture in areas with a damp or moldy smell, especially in basements, kitchens, and bathrooms.
- Look for water stains or colored, fuzzy growth around ceilings, walls, floors, windowsills, and pipes.
- If you smell an earthy, musty odor, search behind and below carpeting, furniture, or stored items.
- Inspect kitchens, bathrooms and basements for standing water, water stains and patches of out-of-place color.

## Getting Rid of Mold

- If there is more than a little mold, use a mask or respirator that will filter out mold spores. Usually it will be designated as an N95, 3M #1860 or TC-21C particulate respirator. These are usually available at hardware stores.
- Wear eye protection, rubber gloves, and clothing that you can launder immediately after clean-up.
- If you can, take furniture that has been wet outside to dry and clean, because direct sunlight prevents mold growth.
- Dispose of mold-contaminated materials, especially porous items. It is impossible to completely remove mold from porous surfaces such as paper, sheetrock (drywall), insulation, wallpaper, and carpet padding, so these materials should be removed and discarded.
- Keep windows open and use fans or dehumidifiers to dry surfaces as long as the mold problem remains.
- Dampen moldy materials before removal to minimize the number of airborne mold spores.
- For mold on hard surfaces such as hard plastic, glass, metal, and countertops, use a scrub brush and non-ammonia soap or detergent. (Note: Do not mix ammonia and bleach; the fumes are toxic.)
- Scrubbing may not completely remove mold growth on structural wood, such as wall studs, so you may need to sand the wood. Wear personal protective gear and isolate the work area from the rest of the home.

If you have a lot of water damage, or if mold growth covers more than 10 square feet of your home, you may need or want to hire a professional. Many are listed under “Carpet & Rug Cleaning & Restoration” in the Yellow Pages.

## When Mold Is Gone

After the mold is removed, disinfect the area using a bleach-and-water solution or another disinfectant. The amount of bleach recommended per gallon of water varies considerably. A clean surface requires less bleach than a dirty surface. A solution of 1/4 cup to 1/2 cup bleach to 1 gallon of water should be adequate for clean surfaces. Concentrations as high as 1½ cups of bleach per gallon of water are recommended for wood and concrete surfaces that could not be thoroughly cleaned.

Let the surface stay wet for about 10-15 minutes to allow the solution to disinfect. Provide adequate ventilation during disinfecting and wear rubber gloves.

Finally, rinse the entire area with clean water and dry the surfaces as quickly as possible using the methods suggested under “Dry Out Your Home First.”

## For More Information

- Centers for Disease Control and Prevention: <http://www.cdc.gov/mold/>
- U.S. Environmental Protection Agency: <http://www.epa.gov/mold/>
- Lewis & Clark County Flood Information: <http://www.co.lewis-clark.mt.us/flooding>

*The Lewis & Clark City-County Health Department's mission is to improve and protect the health of all Lewis & Clark County residents.*